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A Duke Energy Company

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June 9, 2004

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington D.C. 20555

Subject: Duke Energy Corporation
McGuire Nuclear Station Unit 1
Docket Nos. 50-369
Response to NRC Bulletin 2003-02 LEAKAGE FROM REACTOR PRESSURE VESSEL LOWER HEAD PENETRATIONS AND REACTOR COOLANT PRESSURE BOUNDARY INTEGRITY

Pursuant to 10 CFR 50.54(f), this letter and the associated attached Enclosure provides Duke Energy Corporation's (Duke's) response to specific items of NRC Bulletin 2003-02 for McGuire Nuclear Station. This bulletin requested plant-specific information as a result of NRC staff concerns regarding reactor pressure vessel lower head penetration leakage and reactor coolant pressure boundary integrity.

Information is provided for Bulletin item 2. This response provides information concerning the inspection results of the reactor pressure vessel lower head penetrations.

If you have questions or need additional information, please contact Gregory S. Kent at (704)373-6032.

Very truly yours,

G. R. Peterson

ENCLOSURES

G.R. Peterson affirms that he is the person who subscribed his name to the foregoing statement, and that all the matters and facts set forth herein are true and correct to the best of his knowledge.

Vice President
McGuire Nuclear Station

Subscribed and sworn to me: June 9, 2004
Date

Freda K. Crump
Notary Public

My Commission Expires: August 17, 2006
Date

SEAL

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McGuire Master File 801.01
ELL - EC05O

ENCLOSURE I
McGuire Nuclear Station
Response to NRC Bulletin 2003-02

Requested Information

(2)

Within 60 days of plant restart following the next inspection of the RPV lower head penetrations, the subject PWR addressees should submit to the NRC a summary of the inspections performed, the extent of the inspections, the methods used, a description of the as-found condition of the lower head, any findings of relevant indications of through-wall leakage, and a summary of the disposition of any findings of boric acid deposits and any corrective actions taken as a result of indications found.

Response:

On March 8, 2004, McGuire conducted a bare metal visual inspection of the Unit 1 reactor vessel lower head, including 360 degrees around 100% of the bottom mounted instrument (BMI) penetrations. McGuire conducted the inspection using video cameras and direct visual observation.

The inspection showed the presence of translucent boron deposits and superficial flaking of rust-like deposits on the bottom of the reactor vessel. Subsequent laboratory evaluation characterized the flaking material as predominantly rust. None of the deposits were characteristic of through-wall leakage. Isotopic analysis of smears taken randomly from the vessel bottom surface was representative of cavity seal leakage from prior refueling outages.

The bare metal surface of the reactor vessel bottom was cleaned and re-inspected to establish a baseline for future inspections.

The McGuire Unit 1 refueling outage for end of cycle 16 was concluded on April 12, 2004, when the unit was placed on-line.